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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,210

06/03/2005

Philip Howse

BOUL/0015

1866

26290 7590 05/10/2011  
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EXAMINER

PURDY, KYLE A

ART UNIT

PAPER NUMBER

1611

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,210	<b>Applicant(s)</b> HOWSE ET AL.	
	<b>Examiner</b> KYLE PURDY	<b>Art Unit</b> 1611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1 page (9/8/2010)</u>   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/7/2010 has been entered.

### ***Status of Application***

2. The Examiner acknowledges receipt of the amendments filed on 4/7/2010 wherein claim 1 has been amended and claims 3 and 17 have been cancelled and claim 4 has been amended.

3. Claims 1, 2, 4-16 and 18-20 are presented for examination on the merits. The following rejections are made.

### ***Response to Applicants' Arguments***

4. Applicants arguments filed 4/7/2010 regarding the rejection of claims 1-4 and 6-20 made by the Examiner under 35 USC 103(a) over Howse et al. (WO 00/01236) in view of Saini et al. (Am. J. Roentology, 1988) have been fully considered and they are found persuasive. This rejection has been withdrawn, but made anew so as to include an evidentiary reference to strengthen the rejection.

5. Applicants arguments filed 4/7/2010 regarding the rejection of claim 5 made by the Examiner under 35 USC 103(a) over Howse et al. (WO 00/01236) in view of Saini et al. (Am. J. Roentology, 1988) in further view of Westesen et al. (US 5885486) have been fully considered and they are found persuasive. This rejection has been withdrawn, but made anew so as to include as Westesen failed to teach using lipids as a carrier material in a coating layer.

**New Rejections**  
***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**8. Claims 1, 2, 4, 6-16 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howse et al. (WO 00/01236, published 01/13/2000; of record) in view of Saini et al. (American J. Roentgenology, 1988, 150(4), 735-743; of record), evidenced by Ferreira et al. (J. Magnetism and Magnetic Materials, 2005, 289, 442-444; of record).**

9. Howse is directed to a method and apparatus for controlling pests. The method requires exposing the pests to composite particles which comprise a core of an inert substrate which is impregnated with the magnetic material (see page 5; see instant claim 1). The inert substrate is a material, including talcum and/or polymers and resins of cellulose, chitosan, or rubber, which acts as a carrier for the magnetic material as well as for a pesticide or behavior modifying chemical (see page 6; see instant claims 1 and 4). Exemplified magnetic materials include soft

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ferromagnetic materials such as iron, nickel and cobalt (see page 3; see instant claim 2).

Pesticides include any compound that can be used to control agricultural, natural or domestic pests such as insects. Exemplified pesticides include naturally occurring and synthetic insecticides, fungicides, acaricides, insect growth regulators and chemosterilants, entomopathogens such as bacteria, viruses and fungi. Behavior modifying compounds include pheromones, allomones, kairomones, and food odors (see page 7; see instant claims 7-9, 14-17, 19 and 20). The particles are to contain at least 0.1% of the behavior modifying compound or pesticide (see page 6; see instant claim 10-12). The size of the particles range from 2-100 microns (see page 4; see instant claims 6 and 12).

10. Howse fails to teach the [metal] particles as being unmagnetized wherein those unmagnetized particles become magnetized in the presence of the insects' magnetic field.

11. Saini teaches that unmagnetized ferromagnetic materials [iron, nickel, cobalt, etc.] contain multiple domains with random magnetic directions which may become magnetized when present within a sufficient magnetic field (see page 738, right column).

12. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Howse and Saini with a reasonable expectation for success in arriving at a method of controlling pests with unmagnetized soft metals coated with a pesticide or behavior modifying chemical. While it's true that Howse requires magnetized particles, it would have been obvious to any person of ordinary skill that unmagnetized ferromagnetic metals are also capable of performing the exact same function. According to Howse, magnetic particles are capable of adhering to the cuticle of insects for prolonged periods of time without losing their effectiveness (see page 2). It's clear to the Examiner that insects

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possess at the very least a minor magnetic field. This position is evidenced by Ferreira who shows that termites and honey bees contain sufficient amounts of hard magnetic materials so as to exert a coercive magnetic field on an order of between 107-115 and 83-103 Oe, respectively. According to Ferreira, termites and honey bees contain at least two different magnetic components with different coercive forces sufficient to induce magnetism in soft non-magnetized super-paramagnetic materials (like those components described by Howse). Thus, if a composition comprising non-magnetized paramagnetic materials were exposed to an insect's magnetic field, then said non-magnetized paramagnetic material would become polarized/magnetized and attracted to the insects surface. It would have readily occurred to any person of ordinary skill in the art, with knowledge of magnetism, that preparing the same product of Howse but with unmagnetized ferromagnetic material would achieve the exact same result because the unmagnetized metal particles would become polarized upon exposure to an insect's magnetic field and allow for the now magnetized particles to adhere to the surface of the insect [placing the insect in contact with the pesticide or behavior modifying compound]. Further, Saini teaches that unmagnetized ferromagnetic materials contain multiple domains with random magnetic directions. It's taught that such samples are easily magnetized when placed in an external magnetic field because the magnetic moments of each individual domain will orient parallel to the applied magnetic field. Moreover, the unmagnetized material will even magnetize to saturation when exposed to relatively weak external magnetic fields (see page 738, right column). Such magnetic fields are inherent to insects (see Ferreira et al.). Therefore, it would not be a great leap for any person of ordinary skill in the art to modify the work of Howse to use unmagnetized material in place of Howse's magnetized material because the unmagnetized

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material would ultimately become magnetized upon exposure to the insects external magnetic field. Therefore, the invention as a whole is *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

**13. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howse et al. (WO 00/01236, published 01/13/2000) in view of Saini et al. (American J. Roentgenology, 1988, 150(4), 735-743), evidenced by Ferreira et al. (J. Magnetism and Magnetic Materials, 2005, 289, 442-444; of record) as applied to claims 1-4 and 6-20 above, and further in view of Bogentoft et al. (US 4289795, published 09/15/1981).**

14. Howse and Saini do not teach the carrier being a lipid which is a fatty acid, or an ester or salt thereof.

15. Bogentoft cures this deficiency. Bogentoft is directed to preparing preparations having controlled release of an active component. Pesticidal actives are contemplated (see abstract). It's taught that the composition is to comprise a core and a coating layer, wherein said coating comprises an active compound (pesticidal active) and a inactive release controlling substance selected from the group consisting of waxes, fatty acids, fatty acids esters, talc and cellulose (see claim 10; see instant claim 5).

16. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Howse so as to utilize a fatty acid or an ester or salt thereof as the carrier so as to result in a method of controlling pests wherein the carrier material is a fatty acid, or an ester or salt thereof. Although Howse fails to suggest using lipids, fatty acids

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in particular, as a carrier material for the pesticide or behavior modifying material, Howse does suggest the selection of talc and cellulose. Bogentoft teaches controlled release coatings suitable for carrying pesticidal actives, wherein the coating material includes talc, cellulose and fatty acids (and esters thereof). An ordinarily skilled artisan in the art would recognize that fatty acids are interchangeable with both of talc and cellulose, and would have had a reasonable expectation for success in modifying the teaching of Howse so as to providing a fatty acid carrier material (together with or in place of talc and cellulose) capable of carrying the pesticide or behavior modifying compound and releasing that agent in a controlled manner. A person of ordinary skill has good reason to purpose known options [suitable carrier materials] within his or her technical grasp. If this leads to the anticipated success, it is likely that product was not one of innovation, but rather one of ordinary skill and common sense. Therefore, the invention as a whole is *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in absence of evidence to the contrary.

### ***Conclusion***

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyle A. Purdy whose telephone number is 571-270-3504. The examiner can normally be reached from 9AM to 5PM.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau, can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications



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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*/Kyle Purdy/  
Examiner, Art Unit 1611  
May 5, 2011*

*/Allison M. Ford/  
Primary Examiner, Art Unit 1653*